

REMARKS

The Examiner has required restriction in the above-identified application as follows:

- Group I: Claims 1-31, drawing to a method for forming an optical fiber sensor comprising distinctly separate steps; and
- Group II: Claims 32-39, drawn to a method for utilizing a plurality of sensors including measuring amplitudes of a backward-propagating reflection peaks in the fiber at a plurality of times.

The Examiner has also required an election between the follow species:

- A. Claims 1-18, drawn to a method for forming an optical fiber sensor comprising/including the steps of a first end of a first optical fiber with a film, the film having a refractive index different from the first optical fiber; and splicing a second fiber to the first fiber, the second fiber having a refractive index different from the film;
- B. Claims 10-18, drawn to a method for forming an optical fiber sensor comprising/including the steps of exposing the first end and the second end to a vapor of a dielectric material such that dielectric material is deposited in the gap;
- C. Claims 19-24, drawn to a method for forming an optical fiber sensor including the steps of removing a portion of the cladding to form a void, the void having a first surface and a second surface, the first and second surfaces being parallel; and

D. Claims 19-24, drawn to a method for forming an optical fiber sensor including the steps of forming a mask over an optical fiber, the optical fiber having a core surrounded by a cladding, the mask having a single opening; exposing the opening to radiation such that a refractive index of a portion of the fiber corresponding to the opening is changed.

Applicant respectfully submits that examination of all currently pending claims would not pose an undue burden on the Examiner. Section 803 of The Manual of Patent Examining Procedure states that “[i]f the search and examination of an entire application can be made without serious burden, the examiner must examine it on the merits, even though it includes claims to independent or distinct inventions.” Applicant therefore respectfully requests examination of all currently pending claims.

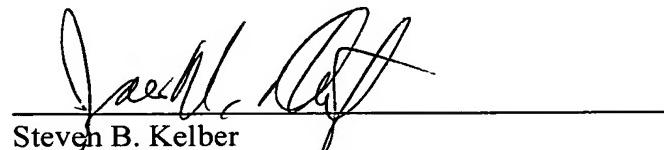
Claims 1-39 are pending and new Claim 40 has been added. No new matter has been added by the addition of Claim 40. Support for Claim 40 can be found in original Claims 25 and 32 and in the specification at page 3, lines 1-9 and page 8, lines 11-15.

Restriction between Claims 1-31, which are drawn to methods for fabricating optical sensors, and between Claims 32-39, which are drawn to methods for multiplexing optical fibers, has been required. This requirement is respectfully traversed. Applicants respectfully submit that new method Claim 40 is a linking claim that prevents the imposition of a restriction requirement. Specifically, new Claim 40 includes the limitations directed toward fabricating a plurality of optical fiber sensors using a method similar to Claim 25 and additional limitations directed toward multiplexing such sensors using a method similar to the method of Claim 32. The existence of this linking claim prevents restriction. M.P.E.P. § 809.03. Accordingly, withdrawal of the requirement for restriction is respectfully requested.

In light of the above, Applicants submit that this application is now in condition for allowance and therefore request favorable consideration. If any issues remain which the Examiner feels may be best resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact Applicants counsel, James M. Heintz at (202) 861-4167.

Respectfully submitted,

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